

REMARKS

Status of Claims

Claims 1-10 are pending in this application and have been rejected. Claims 1 and 7 are currently amended, Claims 2-5 and 9 were previously amended, Claims 6, 8, and 10 have been cancelled, and Claims 11-14 has been added. Basis for currently amended Claims 1 and 7 can be found in the specification on page 8, line 4. Basis for new Claims 11 and 13 can be found in the specification on page 8, lines 6-16. Basis for Claims 12 and 14 can be found on page 7, line 20, page 7, line 27, and page 8, lines 1-2. Reference was made to Claims 24 and 27-36, but the Office Action specifies that only Claims 1-10 are pending. Applicants request that Claims 24 and 27-36 be withdrawn from consideration.

Response to Rejection under 35 USC §102(b)

The claims are rejected under 35 USC §102(b) as being anticipated by U.S. Patent 4,879,322 (Markusch et al.). In particular, the Examiner asserts that Markusch et al. discloses a stable emulsion of a polyurethane urea having a particle size within the instant claims and having a solids content falling within the scope of the instant claims.

Applicants claims, as amended, are novel over Markusch et al. because the claimed polyurethane latex is stabilized by an external anionic surfactant. In contrast, Markusch et al. discloses (column 9, lines 61-65), "In order to enable the polyurethane-urea to be stably dispersed in an aqueous medium, either ionic or potentially ionic groups or lateral or terminal, hydrophilic ethylene oxide units are *chemically incorporated* into the polyurethane-urea." (emphasis added).

Although Applicants do not explicitly define external surfactant, this term is instantly recognizable by one skilled in the art as being interchangeable with the term external emulsifier, which is used by Markusch et al. In column 10, lines 7-16, Markusch et al. teaches "[U]p to about 75% of the allowable, chemically incorporated, hydrophilic ethylene oxide units may be replaced by the known *nonionic external emulsifiers* such as those of the alkaryl type such as polyoxyethylene nonyl phenyl ether or polyoxyethylene octyl phenyl ether....The

ionic or potentially ionic groups may be chemically incorporated into the isocyanate-terminated prepolymer...." (emphasis added).

Thus, Markusch et al. discloses that 1) an external emulsifier is one that is not chemically incorporated into the isocyanate terminated prepolymer and 2) the external emulsifier, if used at all, is an external nonionic emulsifier, which is distinct from the external anionic emulsifier which limits each of Applicants' claims. For this reason, Applicants' polyurethane latex is novel and unobvious over Markusch et al.

The claims are also rejected as being anticipated by U.S. Patent 5,432,228 (Hilken et al.). In particular, the Examiner asserts that Hilken et al. discloses an polyurethane emulsion having a solids content and surfactants falling within the scope of Applicants' claims. As amended, Applicants' claims are now distinguished over Hilken et al., which, like Markusch et al., teaches chemically incorporated units. In column 6, lines 54-65, Hilken et al. teaches, "In the preparation of polyurethanes, the total quantity of hydrophilic centers (anionic groups and optionally terminal and/or lateral polyether chains containing *incorporated* polyethylene oxide units) is always gauged in such a way as to guarantee the solubility or dispersibility of the polyurethanes in water. Although possible in principle, *it is preferred not to use external emulsifiers*. Examples of emulsifiers which may optionally be co-used are ethoxylated nonylphenol, polyoxyethylene laurate, oleate or stearate, these additives generally containing 8 to 150 polyoxyethylene units per molecule." (Emphasis added.)

Therefore, Hilken et al. generally teaches away from using external surfactants, but allows for the possibility of using external *nonionic* surfactants. For this reason, Claims 1 and 7, each of which require an external anionic surfactant are novel over Hilken et al. Claims 2-5, which depend from Claim 1, and Claims 9, and 11-14, which depend from Claim 7 are narrower in scope than allowable claims and are, therefore, necessarily allowable. In particular, Claims 11-14, which specify external surfactants not mentioned in either of the cited references are clearly patentable.

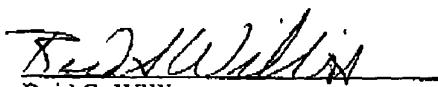
Response to Rejection under 35 U.S.C §112, first paragraph

Claims 8 and 10 have been objected to under 35 U.S.C §112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors at the time the invention was filed had possession of the claimed invention. This objection has been rendered moot by the cancellation of Claims 8 and 10.

Conclusions

For the above-stated reasons, Applicants respectfully request that a Notice of Allowance be granted for Claims 1-5, 7, 9, and 11-14.

Respectfully submitted,


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